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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,974	06/20/2003	Takehiro Shiomoto	56537 DIV (70551)	7159

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EXAMINER	
MENEFEE, JAMES A	

ART UNIT	PAPER NUMBER
2828	

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/600,974	SHIOMOTO ET AL.	
	Examiner	Art Unit	
	James A. Menefee	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 19-28* is/are pending in the application.

4a) Of the above claim(s) *28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 19-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/971,207.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

In response to the amendment filed 10/22/2004, claims 1, 5, and 8 are amended, and claims 19-28 added. Claims 1-8 and 19-28 are pending.

Election/Restrictions

Newly submitted claim 28 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The parent application was restricted between two species: the laser/header having a reflector on the front (now this application), and the laser/header having a reflectance reducing material on the front (remains in the parent). It appears that applicant is attempting to reenter the subject matter that has already been restricted out, a laser/header having reflectance reducing material thereon. Since the restriction in the parent application is believed to be proper, indeed applicant elected without traverse, it appears proper to prevent applicant from claiming that separate invention in this application.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Furthermore, this invention has been actually elected as noted above. Accordingly, claim 28 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Furthermore, it should be noted that if claim 28 were treated on the merits, the claim would be rejected under 35 USC 112 first paragraph as introducing new matter. The conductive

die bond paste, whose entire purpose was to *reduce* reflection, is all that is disclosed as being made of reflectance reducing material. It is nowhere disclosed or fairly suggested that the reflector may be made of such a material, and one skilled in the art would have no reason to make a reflector of a reflectance reducing material. However, no such rejection is relied upon herein as the claim is withdrawn from consideration.

Claim Objections

Claim 1 is objected to because of the following informalities: in the second to last line of the claim there are the words "that that"; the first "that" should read "than".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 and 19-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shikama et al. (US 4,987,566) in view of Nakanishi et al. (US 5,729,519).

Regarding claim 1, Shikama discloses a semiconductor laser device employed in an optical pickup of a 3-beam method that divides one laser beam into three beams by an optical system, said three beams being the 0^{th} order and plus and minus first order beams and directs the three beams towards an optical recording medium and detects tracking error information during said detection by the beams reflected from the recording medium (see Background of the

Invention). Shikama further discloses in Fig. 2 a header portion 4 including a mount surface and a leading edge plane that crosses the plane of the mount surface, a laser chip 1 for generating the one beam mounted on the mounting surface of the header 4, and a reflector attached to a side beam incident region 300 of said header portion 4 and configured and arranged to reflect said side beam outside of the optical system, said side beam being the reflection of one of said first order beams fed back through said optical system returning towards said header portion. It is not disclosed that the reflector is constituted of a material having different properties than the header. Nakanishi teaches that incident beams of a similar system may be reflected using reflector different from the header, therefore a reflector having different properties than the header. See Fig. 9, element 103. The use of a separate reflector on the header is equivalent to using the header itself as the reflector (which is also shown in Nakanishi, Fig. 11), therefore it would have been obvious to one skilled in the art to use the separate reflector as taught in Nakanishi in place of the reflecting header of Shikama.

Regarding claim 2, the laser diode chip may be 50-90 microns thick, thus the claimed distance between the emitting point and the reflecting plane will be as claimed.

Regarding claim 3, Shikama discloses the limitations of the claims as shown above, but does not disclose the exact angle range as claimed. Shikama discloses angle theta, but does not precisely disclose the range of theta. However, the only limit on theta from Shikama is that it is larger than the angle u, also disclosed in Shikama. Thus, the range of theta as disclosed in Shikama must overlap with the range of "greater than 10 degrees" as claimed. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of

obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

Regarding claim 4, Shikama discloses the reflector may have a saw tooth configuration. See Fig. 5. Note that Nakanishi also teaches the reflector may be a saw tooth configuration, see Fig. 10.

Regarding claims 5-7 and 27, the material of the reflector is not disclosed. These materials are known in the art as usable as reflectors. It would have been obvious to one skilled in the art to use these particular materials for the reflector, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 8 and 22, the limitations are taught as in claim 1. The method steps will be met, as the reflector of Nakanishi will be "attached" to the side beam incident region, and the base material of the reflector will necessarily be shaped into a predetermined configuration, i.e. the shape of the reflector. The materials of the reflector are address in the rejection of claims 5-7 above.

Regarding claim 26, the reflector is smaller than the leading edge plane, yet still sufficient to reflect the incident beams.

Regarding claims 19-21 and 23-25, see the rejections of claims 2-4 above.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

The arguments generally appear to be drawn only to the header portion itself of Shikama being reflecting, rather than as claimed a reflector being positioned on the header portion. This is remedied in the above rejections.

Applicant makes further arguments regarding claim 2, arguing that the claim is drawn to the boundaries of the reflecting plane with respect to the light emitting point. But, the claim recites the "distance between a reflecting plane of said reflector and a light emitting point." This recitation does not limit the boundaries of the reflector, at most it limits the distance to any point of the reflector, if the boundaries are what is intended to be claimed then that should be made clear.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The art teaches that thermosetting resins may be used as reflector materials.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Menefee whose telephone number is (571) 272-1944. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MinSun Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JM
December 22, 2004

MINSUN OH HARVEY
PRIMARY EXAMINER